

What is claimed is:

1. A cassette filter comprising a frame and a pleated filter material inserted into it and a protective grid having passage holes secured in the frame at a distance from the filter material and having a flow resistance which is lower than that of the pleated filter material, wherein the protective grid (1) has at least one film strip (2) which is bent around the passage holes (3) and extends parallel to the oncoming flow direction (4) of the medium to be filtered and repeatedly comes in contact with at least one additional identically bent film strip (5) outside of the passage holes (3) at the points of contact (6) and is glued to it at the points of contact (6).
2. The cassette filter as recited in Claim 1, wherein the film strips (2, 5) are in the form of a film ring of triangular, quadrangular, hexagonal, or round layout.
3. The cassette filter as recited in Claim 1, wherein the film strip (2, 5) has corrugations and/or bends (8) running back and forth.
4. The cassette filter as recited in one of Claims 1 through 3, wherein the film strip (2, 5) has a thickness of a maximum of 0.5 mm.
5. The cassette filter as recited in one of Claims 1 through 4, wherein the protective grid (1) has an open area amounting to more than 75% of the oncoming flow area, with a maximum diameter of the passage holes (3) of 15 mm.
6. The cassette filter as recited in one of Claims 1 through 5, wherein the diameter (D) of the passage holes (3) is 2 mm to 15 mm.
7. The cassette filter as recited in one of Claims 1 through 6, wherein the protective grid (1) has a core height (9) of 1 mm to 10 mm.
8. The cassette filter as recited in one of Claims 1 through 7, wherein the film strip (2, 5) has a supporting layer that is meltable at a higher temperature and an adhesive layer which is thermally softenable at least once at a comparatively lower temperature and borders the supporting layer, and the film strips (2, 5) are glued together by temporary

softening and pressing in the area of the adhesive layer forming the protective grid (1).

9. The cassette filter as recited in one of Claims 1 through 8,  
wherein at least the supporting layer is made of metal, plastic, or paper.

10. The cassette filter as recited in one of Claims 1 through 9,  
wherein the pleated filter mat (10) has partings (11) which are glued to spacers; the spacers are formed by strips which viewed along the direction of the partings have spacings between them, and the strips support the protective grid (1) at the same time.

11. The cassette filter as recited in one of Claims 1 through 10,  
wherein the strips are made of foamed or unfoamed plastic.

12. The cassette filter as recited in one of Claims 1 through 11,  
wherein the filter mat (11) is made of paper and/or a nonwoven material.

13. The cassette filter as recited in one of Claims 1 through 12,  
wherein the nonwoven contains glass fibers and/or synthetic fibers, synthetic threads and/or a binder.

14. The cassette filter as recited in one of Claims 1 through 13,  
wherein the protective grid (1) is designed as a flow straightener or sound absorber for the medium to be filtered.